



Center for Nonproliferation Studies
Monterey Institute of International Studies

U.S. Nuclear Cooperation with India

**Testimony
of
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the
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of the
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Thank you, Mr. Chairman for the opportunity to testify on U.S. nuclear cooperation with India in the wake of the July 18, 2005, summit between President George W. Bush and Indian Prime Minister Manmohan Singh

I.

In understandings reached at that meeting, as you know, President Bush agreed to permit sales to India of U.S. civilian nuclear power equipment and materials, reversing twenty-five years of carefully wrought U.S. policy. That policy, known as the “full-scope safeguards” requirement, prohibits most U.S. nuclear commerce with states, like India, that are not recognized as nuclear weapon states under the nuclear Nonproliferation Treaty (NPT) and that refuse to place *all* of their nuclear activities under International Atomic Energy Agency (IAEA) inspection or “safeguards,” a step that precludes the use of the state’s nuclear facilities and materials for nuclear weapons. States refusing to accept such full-scope safeguards are either keeping open the option to develop nuclear weapons in the future or, like India, have actually used facilities not subject to IAEA monitoring to develop nuclear arms.

The full-scope safeguards requirement has two broad goals. It enshrines the principle that we should not contribute in any way to the nuclear weapon potential of states in this category, because capabilities acquired in the civilian nuclear sector can be all too easily transferred to nuclear weapon programs. Secondly, the rule has the effect of imposing a targeted economic sanction against states that keep open the option of developing nuclear arms (or that actually develop them) and, at the same time, provides an incentive for states to accept full-scope safeguards, for example, by joining the nuclear Nonproliferation Treaty (NPT).

It is important to remember that *the United States was one of the first countries to apply the full-scope safeguards requirement* to its civil nuclear exports, beginning in the late 1970s, and thereafter *we became its principal champion* in international fora, eventually persuading the Nuclear Suppliers Group (NSG) to adopt this rule in 1992.²

¹ The views expressed in this testimony are those of the author. The Monterey Institute Center for Nonproliferation Studies does not take positions on policy questions as a corporate entity.

² The Nuclear Suppliers Group now has 44 member states. Members voluntarily agree to apply a uniform set of rules in making nuclear exports. These are embodied in the Nuclear Supplier Group Guidelines, which contain lists of exports to be controlled and rules governing export licensing decisions, including the full-scope safeguards requirement. See <http://www.nuclearsuppliersgroup.org/>

Thereafter, the United States devoted great diplomatic effort to ensure that Supplier Group members adhered to the rule in practice. During the 1990s, for example, the United States vehemently opposed attempts by Russia to bend narrow exceptions the rule so as to permit nuclear power plant sales to India.³ The Bush Administration, moreover, worked assiduously to bring China into the Nuclear Suppliers Group, persuading it, *inter alia*, to accept the group's requirement that recipient states extend IAEA safeguards to all of their nuclear activities, a requirement that in China's case will restrict future civilian nuclear transfers to Pakistan.⁴

I raise these points to underscore that for the United States to abandon this principle in the case of India represents a highly visible and far-reaching change of course that should only be taken for the most worthy states and only for the most compelling reasons. I believe that India does not meet these standards at this time. However, if certain aspects of the U.S.-India understanding regarding civilian nuclear transfers can be implemented effectively, this calculation might change.

II.

To be worthy of benefiting from a modification of current U.S. law, which, to reiterate, conditions U.S. civil nuclear transfers on a recipient's accepting IAEA inspections on all of its nuclear activities, I believe a state must meet *three conditions*.

- ***First, the state in question must have a strong record of not contributing to proliferation by other nations.*** Publicly available information suggests that India may largely meet this requirement today, although it will be important for the Committee to verify that the classified record of India's compliance with international export control norms is also satisfactory. If India were to explicitly adopt the export control standards of the Nuclear Suppliers Group and the Missile Technology Control Regime (MTCR) as contemplated under the U.S.-India understandings of July, India would take an important step forward that would reinforce its commitment to future export restraint. It may be pointed out, however, that totally apart from its understandings with the United States, India is already legally obligated to implement measures of this kind by UN Security Council Resolution 1540, adopted in April 2004, requiring states to enact and enforce effective WMD export control measures (and effective measures to control WMD materials domestically).⁵

³ Eventually Russia backed down on sales beyond two reactors whose transfer, it argued, was agreed to before the NSG rule was adopted in 1992.

⁴ Indeed, in negotiations with China over this point, the Bush Administration obtained China's agreement that China's civil nuclear transfers to Pakistan would be limited to completion of one additional nuclear power plant at Chasma, pursuant to a contract China and Pakistan signed before China joined the NSG. U.S. Assistant Secretary of State for Nonproliferation John Wolf stated, "We would prefer that no such cooperation occur." See "Congress Questions U.S. Support for China Joining Nuclear Group," *Arms Control Today*, June 2004.

http://www.armscontrol.org/act/2004_06/China.asp (accessed October 22, 2005)

⁵ UN Security Council Resolution 1540, "Nonproliferation of Weapons of Mass Destruction," April 28, 2004, http://www.un.org/Docs/sc/unsc_resolutions04.html (accessed October 22, 2005). The

- ***Second, the state should be required to demonstrate that it is actively working with us to halt proliferation elsewhere.*** India is definitely moving in this direction, as seen by its September 24, 2005, vote at the IAEA to declare that Iran is not in compliance with its IAEA safeguards obligations because of its pursuit of an undeclared uranium enrichment capability. I would stress that Russia and China abstained on this vote, so India's decision to condemn a violation of international nonproliferation rules is a noteworthy and very positive step. However, the true test of Indian commitment to international nonproliferation norms will come when a decision at the IAEA must be made to refer Iran's noncompliance to the UN Security Council. Sadly, judging from the way the Singh administration is portraying India's IAEA vote at home, it is unlikely that India will be prepared to stand with us when the crucial test comes at the IAEA later this year.⁶
- There is a third standard, however, that a state must also meet, in my view, before it can be considered for a waiver of 25 years of restrictive U.S. nuclear transfer policy: ***the state must have an unambiguous record of compliance with its civil nuclear transfer agreements.*** As all of us in this room who are familiar with the history of the Indian nuclear weapons program know, India does not meet this test.

Indeed, at this very moment, I consider India to be violating a core international commitment applying to civilian nuclear transfers it has received, by using restricted plutonium for its nuclear weapons program. In fact, it may be disregarding more than one such commitment.

Why would the United States consider opening civil nuclear cooperation with a state that has a clear history of abusing agreements covering such transfers? How could it be confident that India would abide by its agreements in the future?

When Under Secretary Burns declared that "India has not been a proliferator,"⁷ he told only part of the story. He focused only on India's external behavior – not on that country's misuse at home of civilian nuclear technology it had received in the past.

Bush Administration deserves credit for championing this important initiative and gaining its approval by the UN Security Council.

⁶ India's long-standing opposition to the nuclear Nonproliferation Treaty adds to the significance of its decision help the United States to enforce the treaty's requirements against Iran. Unfortunately, India's history of disregarding nonproliferation undertakings, discussed below, undercuts the moral authority of its vote.

⁷ See "Administration To Seek Congress' Support for Nuclear Pact; State Department's Burns Praises India's Record on Nonproliferation," Press Briefing by Under Secretary of State for Political Affairs, <http://usinfo.state.gov/sa/Archive/2005/Jul/20-858577.html> (accessed October 22, 2005). The context for Secretary Burns's comment is as follows:

"UNDER SECRETARY BURNS: One of the factors by which we judge the performance of other countries is to look at the record of commitment to nonproliferation. And if you look at what India has done as it's developed its civil nuclear power sector, its economy and how it's treated fissile material, other sensitive materials and nuclear technologies, India has not been a proliferator. India has

III.

“India chose to totally disregard its commitments to Canada and, in 1974, detonated a nuclear device using plutonium reprocessed from spent fuel from the CIRUS reactor.”

-- Canadian Department of Foreign Affairs and International Trade
<http://www.dfait-maeci.gc.ca/nndi-agency/non-proliferation-en.asp> (accessed October 22, 2005)

“The NSG was created following the explosion in 1974 of a nuclear device by a non-nuclear-weapon State, which demonstrated that nuclear technology transferred for peaceful purposes could be misused.”

-- “History of the NSG,” from the organization’s official website,
<http://www.nsg-online.org/history.htm> (accessed October 22, 2005)

India’s misuse of plutonium produced in the Canadian-supplied CIRUS research reactor is not a matter of ancient history; it is an ongoing offense. The original transgression took place in the 1970s, when India misused the reactor, along with U.S.-supplied heavy water that was essential for the reactor’s operation, in order to produce the plutonium for India’s 1974 nuclear detonation.

India had pledged to Canada and the United States that the reactor and heavy water, respectively, *together with any plutonium produced through their use*, would be used for peaceful purposes only.⁸ The offense is continuing today because, as David

not sold or transferred those materials and equipment to third parties that do not have them. India has been responsible. And India has now opened itself up to a degree of transparency that assures us that this agreement can be verified and will be verified. There's a significant amount of trust between India and the United States, but there's also verifiability in this agreement.”

⁸ The operative language in the Indo-Canadian Agreement states: “Article III. The Government of India will ensure that the reactor and any products resulting from its use will be employed for peaceful purposes only.” Agreement on the Canada-India Colombo Plan Atomic Reactor Project, April 28, 1956. <http://meaindia.nic.in/treatiesagreement/1956/chap131.htm> (accessed October 22, 2005).

The operative language in the Indo-U.S. heavy water contract states, “9. The Government agrees that neither this Agreement nor any Interest thereunder shall be assigned. The heavy water sold hereunder shall be for use only in India by the Government in connection with research into and the use of atomic energy for peaceful purposes, and shall be retained by the Government, or by other parties authorised by the Government to receive it, and not resold or otherwise distributed.” Agreement and between the United States Atomic Energy Commission and the President of India, March 16, 1956. http://www.nci.org/a/1956_d20.htm. I would like to express my appreciation to Paul Leventhal and the Nuclear Control Institute for making this document available.

The reactor and heavy water were supplied before bilateral or IAEA inspections became a norm for nuclear commerce, and thus the reactor has never been subject to IAEA monitoring.

The current status of U.S. heavy water is not known. It may have been exhausted or a portion of the original charge could still be in CIRUS. India has never provided an accounting to the United States of the disposition of the material.

Albright points out in his testimony, a significant fraction of the plutonium *currently* used in the Indian nuclear arsenal was produced in CIRUS. While India cynically proclaimed in 1974 that its nuclear test was a “peaceful nuclear explosion” and therefore did not violate its agreements with Canada and the United States, India has since made absolutely clear that its nuclear explosives today are nuclear *weapons*.⁹ Thus there is no possible way to justify this use of CIRUS-origin material as consistent with India’s “peaceful use” pledges.

India and its champions will put forward a smokescreen of arguments to counter the assertion that India is currently violating an international nuclear transfer agreement and that this should be a bar to renewed U.S. nuclear cooperation.

- Canada, they will argue, has not raised the CIRUS problem as an objection to the proposed new U.S.-India nuclear deal.

But Canada’s views are not the key issue. What matters is whether the United States should undertake nuclear trade with a known violator of civil nuclear agreements – and, as the Canadian government website quoted above makes clear, Canada most certainly believes that India cheated on its commitments.

The Administration would not consider nuclear sales to Iran, for example, because of its non-compliance with IAEA inspections, and on this basis, it is strongly urging Russia to halt construction of a nuclear power plant now nearing completion in Bushehr. Moreover, the Administration ended U.S. support for the development of a nuclear power plant in North Korea, once it concluded that Pyongyang was not complying with the 1994 U.S.-North Korea Agreed Framework. Although one hesitates to place India in the same category as Iran and North Korea, the behavior of the nuclear establishments of the three states is all too similar.

- India will also argue that its agreement with Canada over CIRUS is no longer in force and therefore no longer controls the plutonium created in the reactor.

But that means India believes that a reactor obtained one day under a guarantee of exclusively peaceful use can later be turned to military use, as if the guarantee had never been given. Does the United States want to bend long-standing international nonproliferation rules to engage in nuclear trade with a state taking such a position, a state that takes cover behind a legalism to shield its misappropriation of highly sensitive nuclear technology? Is this a paragon we wish to champion to the world as a model of behavior worthy of special treatment?¹⁰

⁹ In 1997, it should be added, AP reported that the individual leading the testing group in India in 1974, Dr. Raja Ramanna, declared during an address in western India, “The Pokhran test was a bomb, I can tell you now.” AP, October 10, 1997, New Delhi. This statement was brought to my attention by Paul Leventhal, founding president of the Nuclear Control Institute.

¹⁰ The Canada-India agreement on CIRUS has no termination date.

Even if the United States could somehow obtain a double-ironclad guarantee in a new agreement for cooperation with India, specifying that Indian pledges of non-explosive use of our future transfers would continue “in perpetuity.” I am not sure we could be confident that India would stand by these pledges, given this history. Opening nuclear trade with India must be based not only on exquisite legal drafting, but also on underlying trust that India is a credible nuclear trading partner.¹¹

IV.

India will soon be forced to show its true colors regarding the CIRUS reactor and the plutonium the facility has produced. In his understanding with President Bush, Prime Minister Singh agreed to identify India’s nuclear facilities as civilian or military, and voluntarily to place the former under IAEA inspection. How will the Indian government characterize CIRUS?

Will India thumb its nose at Canada, and the wider international community, and baldly renounce all restrictions on the facility by declaring it to be a military installation, or will India demonstrate to the world that it is, indeed, respectful of international nonproliferation norms and list CIRUS as a civilian facility?

It is also necessary to look not only at the future use of CIRUS, but also to address the plutonium produced by the reactor over the years. If CIRUS is declared civilian because of the terms under which it was provided, then presumably the peaceful-use pledge would cover the plutonium it generated, and this would need to be sequestered apart from India’s military stockpile and placed under IAEA monitoring.¹²

V.

I noted earlier that India may be transgressing a second nuclear trade agreement. I have in mind its agreement with Canada covering the Rajasthan Atomic Power

¹¹ This said, any future agreement for cooperation with India must include facility-specific, in-perpetuity IAEA safeguards coverage. See Frederick McGoldrick, Harold Bengelsdorf, and Lawrence Scheinman, “The U.S.-India Deal: Taking Stock,” *Arms Control Today*, October 2005.

¹² It may be whispered that it is unrealistic to expect India to give up such an important element of its nuclear weapons capability at this time and, indeed, that it is not in the interest of the United States to press it to do so.

I would reply that, in fact, India would *gain* strategically from this approach because the country would quiet critics of its nuclear posture and establish itself as a genuinely responsible advanced nuclear state, with strong nonproliferation credentials, locking in improved nuclear trade ties with the United States that would more easily endure beyond the current Administration. India’s reduced stocks of plutonium would still be ample for a minimum deterrent and, most likely, the number warheads it could develop from these stocks would be in rough balance with the number of the strategic delivery systems it has fielded. U.S. nonproliferation policy, moreover, can hardly be founded on promoting the enlargement of nuclear arsenals based upon disregard for nonproliferation agreements.

Station, whose nuclear power reactors were supplied by Canada.¹³ Those reactors are under IAEA safeguards, and there have been no concerns about the misuse of the plutonium produced in them.

However, India has replicated these reactors and is now operating eleven additional Canadian-style reactors – two at Kaiga, two at Kakrapar, two at Kalpakkam, two at Narora, two at the Rajasthan Atomic Power Station (in addition to the original two supplied by Canada), and one at Tarapur. These facilities are not under IAEA monitoring. There is a distinct possibility that plutonium produced in these facilities (which are well suited for producing especially high-quality plutonium) has been incorporated into Indian nuclear weapons.

Presumably, these facilities will now be declared civilian and placed under IAEA monitoring, but the issue Congress must focus on is whether any separated plutonium and plutonium-bearing spent fuel the reactors have produced over the years will also be placed under IAEA safeguards. If not, depending on the terms governing replication of technology from the Rajasthan reactors, we could confront a similar question to that posed by CIRUS, where India has improperly appropriated nuclear technology originally supplied under non-explosive use pledges and holds open the option of using the reactors' past output for nuclear arms.¹⁴

VI.

How should the Congress respond to the points I have raised?

The single most important step that the Congress can take is to ***exercise its authority under the Atomic Energy Act to review and vote upon new agreements for cooperation***. I would hope that the House of Representatives, in particular, would be attentive to this authority, since the Atomic Energy Act provides one of the few opportunities for the House to rule upon international agreements, a prerogative normally reserved to the Senate. I would therefore urge ***this Committee to forcefully oppose any effort by the Administration to bypass the normal process for considering such agreements***, for example, by appending special legislation authorizing nuclear sales to India to an omnibus appropriations bill or other such “unopposable” legislation.

Second, I would urge the Committee ***to demand that India's past violations of international nuclear transfer agreements be rectified*** before the United States will

¹³ See Agreement Between the Government of India and the Government of Canada in Collaboration in the Development of Heavy Water Power Reactor Systems, New Delhi, 16 December 1963, <http://meaindia.nic.in/treatiesagreement/1963/chap290.htm> (accessed October 22, 2005), amended December 16, 1966.

¹⁴ I have heard, although I have not been able to confirm, that the Rajasthan reactors were provided by Canada under “replication” restraints, such that all of the assurances concerning the use of the Rajasthan units were to carry over to any additional reactors based on their technology. If so, the case that India should place all plutonium produced through the use of the replicated Canadian-style reactors under IAEA safeguards would be still stronger.

consider renewed nuclear trade, by requiring that India declare CIRUS to be a civilian facility and place that reactor, *and the plutonium it has produced*, under IAEA safeguards so as to preclude their use for nuclear weapons. Locking down the past and future plutonium production potential of India's Canadian-style nuclear power reactors is also critical in this regard.¹⁵

Third, if these conditions are met and:

- if the Congress determines after examining the classified record, that India is, indeed, not engaged in activities that promote proliferation elsewhere; and
- if India continues to demonstrate its commitment other international nonproliferation norms by adopting internationally accepted export control standards and supporting key U.S. nonproliferation initiatives (including those regarding Iran at the IAEA),

then opening the door to renewed civil nuclear cooperation with India under strict controls might be justified.¹⁶

In these circumstances, the United States would not only have promoted closer ties with a natural ally, but it would have genuinely advanced crucial nonproliferation goals and established important boundaries that do not now exist on India's nuclear weapons potential, while also respecting its status as a nuclear weapon power.

¹⁵ Variations on these principles could also be effective, for example, if India, without admitting any past wrong-doing, shut down CIRUS on the grounds of obsolescence and declared a portion of the country's high-quality plutonium to be "excess to its defense needs" and placed it under IAEA inspection. The United States and Russia have made similar declarations of excess fissile material, and this has been or will be placed under IAEA monitoring.

¹⁶ A number of my colleagues have stressed the importance of capping India's nuclear potential by requiring India to accept a freeze on the future production of plutonium and highly enriched uranium for nuclear weapons (that is, production of these materials outside of IAEA safeguards), by means of a "fissile material cut-off" agreement leading to an international Fissile Material Cut-Off Treaty. I believe the Administration is also actively pursuing this goal. I agree that this is a most important objective, but the approach that I have suggested accomplishes the goal of limiting Indian fissile material stocks more effectively.

First, it immediately eliminates production of plutonium by one of India's two plutonium production reactors and does so verifiably, since IAEA safeguards would apply; the "Fissile Material Cut-Off Treaty" espoused by the Administration would not be verifiable. Second, the approach I have outlined eliminates the possibility that newly produced plutonium from India's large-scale Canadian-style nuclear power plants might be used to contribute to the Indian nuclear arsenal. Third, and most important, the approach I have suggested would capture and place under IAEA inspection past production of plutonium by India that is based on the use of the CIRUS reactor and the Canadian-style power reactors, thus immediately *reducing* the amount of Indian fissile material available for weapons, a nonproliferation outcome superior to a mere freeze on new production. It would be many years before India would be able to rebuild its fissile material stocks to current levels, by which time a global Fissile Material Cut-Off Treaty will likely be in place.

VII.

Earlier in my remarks, I stated that to amend U.S. nuclear cooperation policy, there must both be a worthy partner and compelling reasons to make the change. The Administration considers its nuclear concessions to be part of a larger set of initiatives aimed at building a “strategic partnership” with India. The unstated goal of this strategic partnership is to build India into a political and military counterweight to China.¹⁷

I strongly support closer ties with India and agree with the premise that our two countries’ commitments to pluralistic democracy create the basis for strong political bonds. But I find it most difficult to imagine that we will transform India into a de facto military ally, one that might support us, for example, by placing its forces on alert, during a U.S.-China crisis over Taiwan. Sacrificing an important nonproliferation standard in pursuit of such a will-o-the-wisp alliance hardly seems defensible. Moreover, even if a military alliance were practicable, when one examines our relations with two other non-NPT states, it is clear that we have successfully built such alliances with Israel and, as part of the Global War on Terrorism, with Pakistan, without the need to bend our nuclear transfer rules.

In addition, of course, India in its own self-interest has already established what it considers to be a sufficient countervailing military and political presence vis-à-vis China, without the need for external alliances.¹⁸ Nor is it necessary for the United States to incentivize India to oppose radical Islam. India is already committed to this path for reasons we all know, and hardly needs the reward of U.S. nuclear trade to continue this policy.

In sum, geo-politics and grand strategy do not appear to provide compelling reasons for changing our nonproliferation rules.

Finally, as I have mentioned, it is possible that more specific nonproliferation undertakings by India could offer a justification for such changes, but it is very premature to make such a judgment. Many of the undertakings India presented in the understanding of July 18 are, as I mentioned, already required under international law, while others – such as the pledge to continue its unilateral moratorium on nuclear testing – are little more than a restatement of current Indian policy.

¹⁷ See e.g., “US wants to help India be a superpower.” Agence France Presse, March 26, 2005, <http://sify.com/news/othernews/fullstory.php?id=13702274> (accessed October 22, 2005).

¹⁸ I would also point out that it is most difficult to predict China’s future orientation – whether it will emerge as a peaceful, status quo power focused on its own economic development and political evolution, or as an assertive, ambitious player on the international stage, with expansionist goals. Obviously it is in the U.S. interest to promote the former outcome, but an explicit policy of developing a counter-China military alliance with India could be perceived in Beijing as a hostile initiative that could drive China in the opposite direction.

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There is much work to be done to better understand what India is preparing to offer as part of the bargain over renewed U.S. nuclear cooperation. In this setting, I urge the Congress to proceed cautiously and avoid taking major decisions before all of the pending issues are satisfactorily clarified.